

ENGINEERING STANDARDS UPDATE

Standards are serious business, but this newsletter isn't.

Topics this month:

- **Rehires and Retires**
- **Report Non-Gov't Standards Work**
- **LANL Standards Issued in September**
- **Research Library Engineering Liaison**
- **Engineering Processes News**
- **Training & Qualification**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

The LANL Engineering Standards: <http://engstandards.lanl.gov/>

REHIRES AND RETIRES

This month, Engineering Services Division welcomed back Larry Goen as a Lab Associate (e.g., half-time max), initially to help revise the ESM Structural Chapter (spectral accelerations going down!). Also back is Randy Burditt, destined for ES-WFO. Perhaps working at LANL isn't so bad.

The good news is tempered by the retirement announcement of Rick Hemphill, manager of ES-FE and the Conduct of Engineering Office, for the end of November. He'll sure be missed around here, but maybe we'll see him again, too.

REPORT NON-GOV'T STANDARDS WORK

If you're a Lab employee serving on a committee maintaining or writing a national or international code or standard for which I am not aware, please contact me (same when work stops). Examples are ASME, ASTM, ISO, NFPA, etc. Over 60 employees serve on over 150 committees doing such work which we must report to DOE-HQ per the contract ([more than any other site](#)). Standards Heroes all, they include:

Randall D. Austin	David A. Fry	Robert C. Little	Michael W. Salmon
Michael E. Bange	David P. Fuehne	Jean-Francois Lucchini	Michelle E. Silva
Luiz Bertelli	Milan S. Gadd	Michael W. Mallett	Phillip H. Stauffer
David A. Bingham	Michael (Misha)	Kattathu J. Mathew	Jacob Stinnett
Kelly L. Bingham	Gallegos	Thomas D. McLean	James R. Streit
Amber N. Black	Lloyd B. Gordon	Renee A. Mondragon	Jared T. Stritzinger
David A. Bruggeman	David P. Harvey	Murray E. Moore	Ari Ben Swartz
Brittain J. (Britt)	Vladimir Henzl	William L. Myers	Yong Tao
Catron	Jon E. (Rick) Hinckley	Roy S. Nielsen	Taunia S. Van
Ralph J. Clayton	Patrick W. Hohanadel	Glen J. Pappas	Valkenburg
Paul J. Contreras	Daniel A. Javernick	Donivan R. Porterfield	James Thomas (Tom)
Theresa E. Cutler	Benjamin Karmioli	Jose E. Rodriguez	Voss
Paula R. Diepolder	Theodore J. Keppner	Christopher Romero	Tom L. Waters
Shannan D. Diffey	Brett R. Krueger	Mark S. Rosenberger	Jeffrey J. Whicker
Scott W. Doebbling	Joel A. Kulesza	Scott R. Salisbury	Brandon M. Wilson
Donald J. Dudziak	Richard C. Lee		Ning Zhang

LANL STANDARDS ISSUED IN SEPTEMBER
Engineering Standards Manual ESM [STD-342-100](#)

ESM-Chapter	Section	Title	Rev.	Date	Summary of latest Revision
Ch 11, Radiological Protection	F1030.50	–		9/18/19	Posted VAR-10347- Radiological Engineering Design/Design Support (which clarifies when to involve RP Eng.
Ch 15, Commissioning	–	–		–	Posted ch 15 reference DOE G 413.3-23, Nuclear Facilities Commissioning [directives.doe.gov]
Chapter 17, Pressure Safety	NASME	New Non-ASME System Requirements		9/19/19	Reputable manufacturers reference updated
Ch 21, Software	SOFT-GEN	General Software Requirements		9/25/19	Posted VAR-10326R1 - Chapter 21 (Software) activity and form approvals for Safety Basis and Nuclear Criticality Safety Divisions

Also—when the Standards Team wraps another FY it's time to run the numbers. Since last September, we:

Revised or created:

- 33 ESM Chapter, Section, or subtier documents (total now 375 documents)
- 30 LANL Master Specs (1 cancelation); total now 200
- 3 CAD Stds Manual sections or documents
- 4 Std Details (total now 240 sheets)

Offered the following courses:

- Intro to LANL Eng Standards (three times)
- ESM Ch 21 Software Intro, Owners (June)
- Electrical Standards (quarterly)

RESEARCH LIBRARY ENGINEERING LIAISON

This offer of help came in and you can't beat that:

Hello! My name is Sarah Hayes, and I am the newest engineering liaison at LANL's Research Library.

I know this might be an unusual request, but I was wondering if you could put a short introduction for me in the next standards monthly update?

I would like the employees at the lab who use engineering standards to know I'm available for any of their engineering-related or library-related needs, including searching for standards, codes, handbooks, and other engineering-related resources that the library subscribes to. I have experience with IHS Engineering Workbench, engineering-related databases such as IEEE Xplore and Scopus, and various catalogs for technical reports and documents.

I am available via phone, email, or in person to answer any questions. I look forward to working with you in the near future!

Thank you for your time,

Sarah Hayes
Pronouns: she/her
GRA, LANL Research Library
Office Phone #505-667-0437
ORCID: <https://orcid.org/0000-0002-8089-0749>

ENGINEERING PROCESSES NEWS

The following Administrative Procedures have been revised and posted on the [SharePoint site](#).

AP-341-405-R4	Identification and Control of Technical Baseline in Operating Facilities Course 54133	Issued: 8/12/19
AP-341-504-R3	Temporary Modification Control Course 44252	Issued: 9/18/19
AP-341-517-R2	Design Change Form Mandatory briefings are being scheduled for all FDARs, PEs, and SEs (Course 47300)	Issued: 9/12/19

Always ensure you are working to the latest revision being implemented by your facility.

For questions on these APs, please contact Eng Processes program manager Sarah Terrill sterrill@lanl.gov, 7-7788. Or try [Jeff Fauble](#) at 5-5832. He's half-time-ish, more often at jfauble@lanl.gov; (if it bounces, click Outlook's "To" button and select him from the directory; after that the autocomplete will work).

When ideas for AP change come, please enter them in the SharePoint database. Use the live button below, same one that's found in the upper right of the Processes [homepage](#).



TRAINING & QUALIFICATION

ESM Chapter 21 Software Overview and Owners Courses – Wed, Nov 13 RLUOB (TA-55-0400) Rm 4503

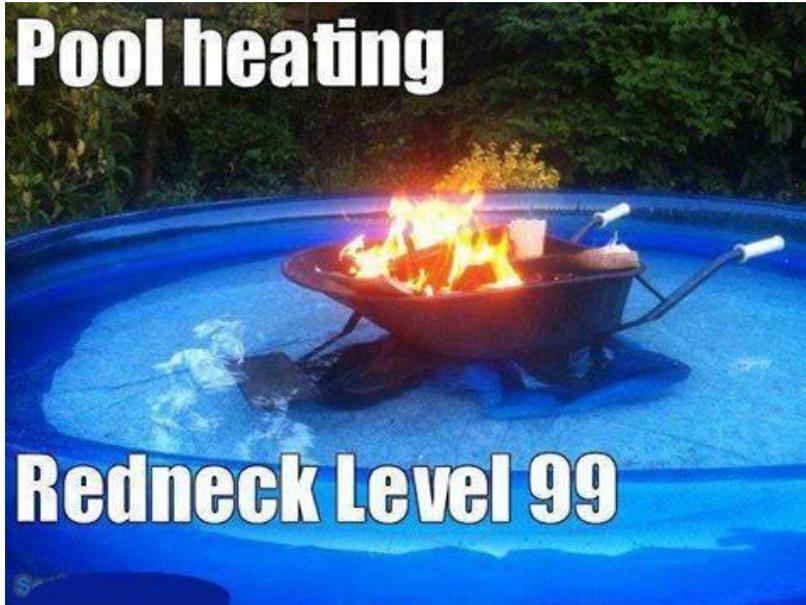
Perhaps a few of you are new “Owners” of nuclear safety or other ML-1, -2, or -3 software (installed in a system, or maybe for design/analysis). Most people in that situation are or soon will be subject to ESM Chapter 21 Software and need to take required training on the chapter. (Non-“Owner” tech staff in ES-Div may take the a live course such as the 38047 overview, but if they don't they must take UTrain Required Reading 38040, which should show up in their to-do list if so). So...if you, in fact, need live training, please enroll for the course(s) below. If you're not sure what you need, contact me (5-8475) or SME/instructor Joy Getha, 5-9586, jgetha@lanl.gov. Next offering will be several months from now.

- [38047](#) ESM Chapter 21 Software Overview Course 9-11:30 a.m. (RLMs and Owners)
- [34048](#) ESM Chapter 21 Software Owner's Course 1-3 p.m. (just Owners return for this)

Electrical Standards – Thurs, Nov 14 WRTC 112

Four-hour course [17998](#) covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. AEs are also encouraged to attend. Taught by Electrical Standards POC Eric Stromberg from 7:30–11:30 am, at White Rock Training Center TA-00-1308 Rm 112.

REGISTERING for UTrain Courses: Go to [UTrain](#), search on course, select and enroll. Disenroll if you have to bail. AEs can also register; use token (CryptoCard) or contact ES T&Q coordinator Yolanda Trujillo at 665-5696 or ytrujillo@lanl.gov with Z number.



Elephants and inspiration

Structural engineer Ed Quesenberry shares the challenges of designing a zoo structure project to withstand abuse from elephants standing 14 feet tall and weighing 14,000 pounds. [Read more](#)

DOE TECHNICAL STANDARDS ACTION

Tech Stds Program [postings](#) in the past month:
[DOE-STD-1194-2019](#), Nuclear Materials Control and Accountability

Also, there's a [website](#) that shows DOE's 10 most frequently accessed STDs. The first (2019) is likely an artifact of the website design, but the rest is interesting, if true:

Document Viewed	Number of times viewed
DOE-HDBK-1233-2019, DOE Operations Security (OPSEC) Handbook	8841
DOE-STD-3009-2014, Preparation of Nonreactor Nuclear Facility Documented Safety Analysis	6360
DOE-STD-1212-2012, Explosives Safety	6027
DOE-STD-1090-2011, Hoisting and Rigging	5096
DOE-STD-1066-2016, Fire Protection	4350
DOE-STD-1189-2016, Integration of Safety into the Design Process	3577
DOE-STD-1028-2009, Human Performance Improvement Handbook, Volume 1 (Part 1 of 2)	3164

DOE-STD-1020-2016, Natural Phenomena Hazards Analysis and Design Criteria for DOE Facilities	2893
DOE-STD-1027-2018, Hazard Categorization of DOE Nuclear Facilities	2884
DOE-HDBK-1019/1-93, DOE Fundamentals Handbook, Nuclear Physics and Reactor Theory, Volume 1 of 2	2735

NATIONAL STANDARDS ACTION

LANL's [IHS](#) online codes & standards subscription reports these changes: None. But here's a revision that's not national, but New Mexico:

[NM Standard Specifications for Highway and Bridge Construction](#) (also Standard Drawings for Highway and Bridge Construction). The ESM [Civil chapter](#) section G10-30GEN references this.

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

[Engineers approve \\$100M retrofit for San Francisco's 'sinking' Millennium Tower \(ConstructionDive\)](#)

LAST MONTH'S UPDATE TOPICS

Miss an issue? The archive is at "[Monthly Update](#)" on the [Standards homepage](#). Last month's topics:

- **Spotlight on Pressure Safety**
- **Training & Qualification**
- **LANL Standards Issued in July or so**
- **Engineering Processes News**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

The views expressed in this email are not necessarily those of my employer. To request a change to this newsletter's distribution, please contact me.

Tobin Oruch, Engineering Standards Mgr
Los Alamos Nat'l Lab, Conduct of Eng Program Office
(505) 665-8475 oruch@lanl.gov <http://engstandards.lanl.gov/>
Please consider the environment before printing this or any email